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A NEW SPECIES OF *GELOTIA* (ARANEAE: SALTICIDAE) FROM SRI LANKA

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Abstract.—*Gelotia lanka* n. sp. is described from Sri Lanka based on both sexes and is distinguished from its close relative *G. syringopalpis* Wanless of Malaysia. The new taxon represents a significant extension of the range of the genus *Gelotia,* previously known only from Southeast Asia.

The Indo-Malayan jumping spider genus *Gelotia* Thorell was revised by Wanless (1984) as part of his wider review of the subfamily Spartaeinae. According to that revision the genus contains six species, three of which are known only from males while one (*G. frenata* Thorell, the type species of the genus) is known only from the female. Wanless referred to the shape of the retrolateral tibial apophysis of male palps (described as 'cap-shaped' in ventral view) as a diagnostic feature uniting the species of this genus. In *Gelotia* this apophysis is better described as a proximally dilated distinct element which is narrowly attached dorsolaterally to the tibia via a membranous region ('amorphous process' of Wanless), basally articulating with the retrolateral surface of the tibia and capable of limited independent movement. The dorsally curving embolus and anteriorly shifted distal haematodocha and embolar base seen in *Gelotia* are also shared by another spartaeine genus, *Cocalus* (Wanless, 1981), and provide evidence for a sister group relationship between these two genera, as suggested already by Wanless (1984).

The genus *Gelotia* has been thought until now to be restricted to a region extending from peninsular Malaysia through the Indonesian archipelago to New Guinea; it has not been recorded from continental Southeast Asia or from the Indian subcontinent. The discovery of a new species from Sri Lanka is therefore of great interest as it extends the range of the genus considerably. The new species is additionally noteworthy in displaying several derived features which it shares with *Gelotia syringopalpis* Wanless of West Malaysia. Among these features are the presence of a posterior ramus on the retrolateral tibial apophysis and the highly modified embolar region of the male palp and the presence of a pair of mammiform tubercles on the copulatory ducts of females. [These tubercles are not shown by Wanless in the relevant figure of *G. syringopalpis* (Wanless, 1984:179, fig. 21G) but are certainly present in that species though rather small.] The discovery of a *Gelotia* in Sri Lanka suggests that further collecting may reveal the presence of the genus also in the Indian subcontinent, in particular in the rainforest areas of the southwest and northeast. The format of the description follows Wanless (1984); actual measurements, rather than ratios, are provided, however. Museum abbreviations are as follows: AMNH (American Museum of Natural History, New York); CNMS (Sri Lanka Department of National Museums, Colombo).

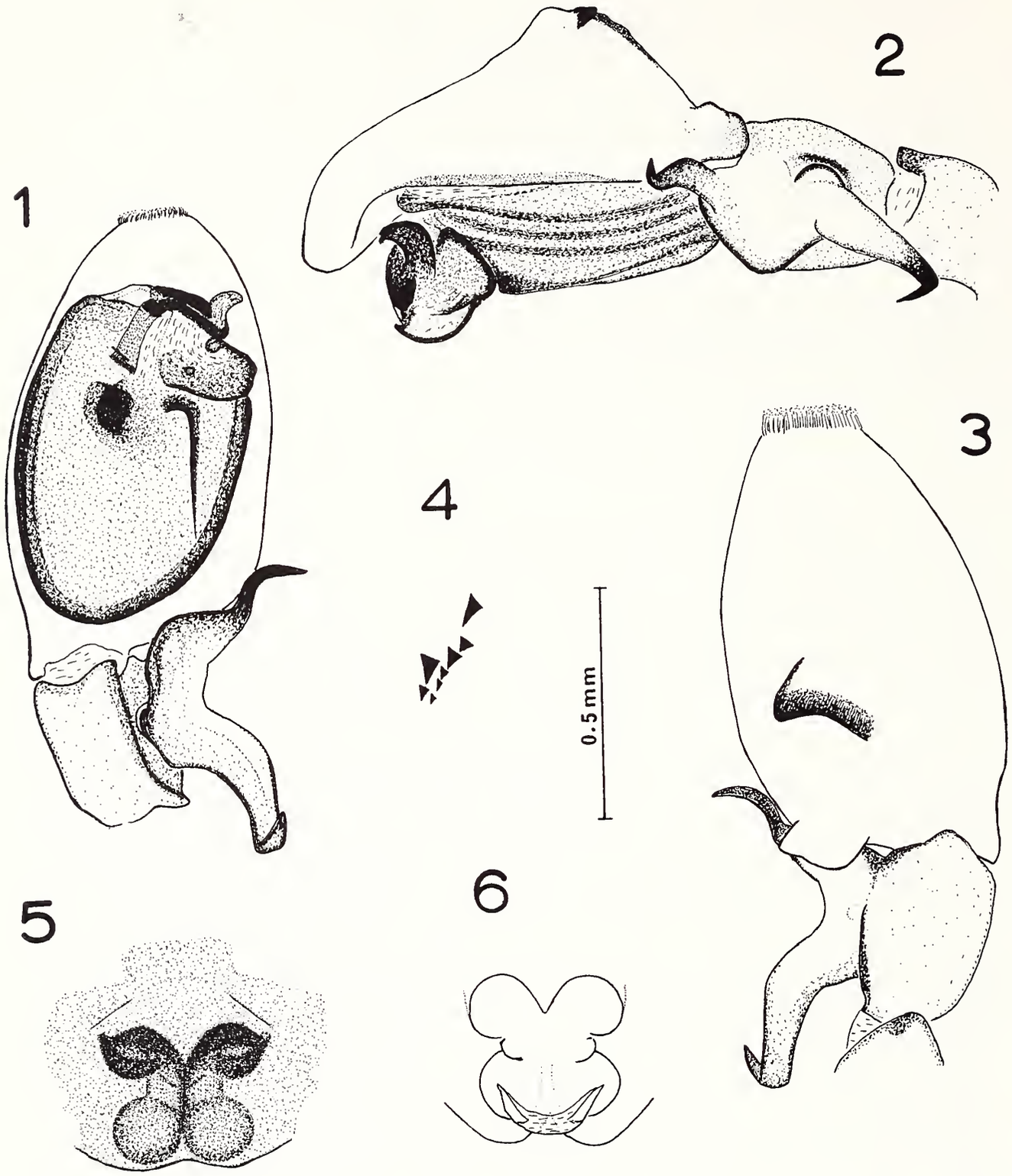
Gelotia lanka, new species
(Figs. 1–6)

Diagnosis. G. lanka appears to be closely related to *G. syringopalpis* on the basis of the biramous retrolateral tibial apophysis of males and the presence of a pair of mammiform tubercles on the copulatory ducts of females; however, it can easily be distinguished from that species by the posteriorly keeled dorsal cymbial apophysis and the different structure of the retrolateral tibial apophysis in males and the shallow, wide epigynal atrium and distally bulbous copulatory ducts in females.

Male holotype (in good condition). *Carapace:* reddish brown, with faint blackish markings; eye region lightly punctate, faintly iridescent, clothed with brownish hairs, darker on sides and thoracic region; margins narrowly blackish, pair of broad white bands above margins, narrower medial band on thoracic region. *Eyes:* encircled in black; few short setae laterally, row of setae behind anterior eyes; anteriors fringed with brown and white hairs. *Clypeus:* yellow-brown, clothed with white hairs; pair of long setae below each AME, triad between and below AME; row of white hairs at margin. *Chelicerae:* yellow-brown, tinged greyish; clothed with white hairs and setae proximally, many long fine setae distally and medially; promargin with three, retromargin with five teeth. *Maxillae and labium:* pale yellow-brown, scopulae strong. *Sternum:* yellow-brown, tinged greyish, shiny; with scattered white hairs. *Coxae:* pale yellow-brown. *Abdomen:* dorsally pale yellow-brown, greyish at sides and posterior, clothed with short setae and scattered iridescent brown hairs; ventrally whitish, tinged grey posteriorly; spinnerets pale greyish brown. *Legs:* moderately long and slender; yellow-brown, femora with dark subterminal bands; femora I retrolaterally greyish, with small tubercle (femoral organ) ventro-prolaterally; spines numerous. Spination of legs I: metatarsi v2-0-1, p1-1-0, d0-1-2, r1-1-1; tibiae v2-2-2, p1-0-1, d1-1-0, r1-0-1; patellae p0-1-0, r0-1-0; femora p0-0-1, d0-1-4. *Palp* (Figs. 1–3): retrolateral tibial apophysis biramous, basally membranous, base of anterior ramus continuous with tibia dorsally, base of posterior ramus rounded, condyle-like, articulating with socket on retrolateral face of tibia; cymbium with well-developed posteriorly keeled dorsal apophysis, proximal retrolateral flange mammiform dorsally; tegular furrow J-shaped, embolar complex hyaline.

Dimensions (mm): total length 5.25; carapace length 2.33, breadth 1.79, height 1.45; abdomen length 2.55; legs, I 6.73, II 5.64, III 5.78, IV 7.87; eyes, anterior row 1.80, middle row 1.62, posterior row 1.75; quadrangle length 1.28; diameters, AM 0.55, AL 0.31, PM 0.19, PL 0.29; interocular distances AL-PM-PL 0.40–0.37; clypeus 0.19.

Female paratype (in good condition). *Carapace:* dark reddish brown, with irregular blackish markings; eye region lightly punctate, faintly iridescent, clothed with fine translucent hairs; sides and thoracic region with dark and pale hairs; margins blackish, pair of broad white bands above margins, narrower medial white band on thoracic region. *Eyes:* encircled in black; few short setae laterally, row of setae behind anterior eyes, anteriors fringed with white and brown hairs. *Clypeus:* reddish brown; two long setae below each AME, triad between and below AME; row of white hairs along margin. *Chelicerae:* reddish brown, anteriorly convex; medially with many long setae; three promarginal and six retromarginal teeth. *Maxillae and labium:* pale reddish brown. *Sternum:* pale brown, tinged grey, shiny; sparsely clothed with white hairs.



Figs. 1–6. *Gelotia lanka,* n. sp. 1. Palp, ventral view. 2. Palp, retrolateral view. 3. Palp, dorsal view. 4. Male cheliceral dentition. 5. Epigynum, ventral view. 6. Spermathecae and ducts, dorsal view.

Coxae: similar to sternum. *Abdomen:* dorsally fawn, paler folium widened posteriorly, with two pairs of white spots; clothed with short setae and fine iridescent hairs; ventrally blackish, pair of elongate pale blotches posteriorly at sides; spinnerets grey-brown. *Legs:* dark yellow-brown, legs I-II darker, with blackish annulations; spines numerous. *Palps:* similar to legs, tibiae and tarsi with long white hairs; terminal claw present. Spination of legs I: metatarsi, v2-0-0, p0-1-0, r0-1-0; tibiae v2-2-3, p1-0-1;

patellae p1-0-1, r0-1-0; femora p0-0-1, d0-1-4. *Epigynum* (Figs. 5–6): atrium shallow, wide; spermathecae spherical, close together, copulatory ducts distally bulbous, heavily sclerotized, proximally with pair of large mammiform tubercles dorsally near spermathecae; postepigynal region with more or less triangular sclerotizations at sides.

Dimensions (mm): total length 6.2; carapace length 2.80, breadth 2.13, height 1.68; abdomen length 3.4; legs, I 7.13, II 6.38, III 6.14, IV 8.12; eyes, anterior row 2.01, middle row 1.82, posterior row 2.00; quadrangle length 1.33; diameters, AM 0.61, AL 0.35, PM 0.20, PL 0.34; interocular distances AL-PM-PL 0.43–0.41; clypeus 0.16.

Variation. Females (N = 3): total length 6.2–7.9; carapace length 2.80–3.20. Sclerotization of the postepigynal region is variable in extent, though present in all three specimens.

Distribution. Sri Lanka.

Material examined. Holotype: Opatha, Gampaha District: ♂, on vegetation, 23 November 1986 (T. Wijesiri, AMNH). Paratypes: same data as holotype: 2♀♀, 1 juv. (AMNH); Sinharaja Forest, Ratnapura District: 1♀, on vegetation, 20–23 October 1984 (D. P. Wijesinghe, CNMS).

Etymology. Named for the country in which the species was discovered; a noun in aposition.

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